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CLAIMS

1. A monomer compound represented by the general formula (1):

$$F \longrightarrow F$$

$$Tf \longrightarrow Tf$$

$$Tf$$

wherein Tf indicates a trifluoromethane sulfonyl group (-SO₂CF₃).

2. A graft copolymer compound in which the monomer compound represented by the general formula (1):

$$F \longrightarrow F$$

$$Tf \longrightarrow Tf$$

$$H$$

$$Tf$$

is graft-copolymerized to the main chain of a fluorine-containing hydrocarbon polymer, wherein Tf indicates a trifluoromethane sulfonyl group (-SO₂CF₃).

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3. The graft copolymer compound according to claim 2 represented by the general formula (2):

$$\begin{array}{c|c} CH & CF_2 \\ \hline CH_2 & CF_2 \\ \hline F & F \\ \hline Tf \\ \hline Tf \\ \hline Tf \\ \hline m \end{array} \tag{2}$$

wherein the main chain of said fluorine-containing hydrocarbon polymer is an ethylene-tetrafluoroethylene copolymer, and Tf indicates a trifluoromethane sulfonyl group (-SO₂CF₃), n is not less than 10, and m is not less than 3.

4. A method for manufacturing a graft copolymer compound comprising graft-copolymerizing the monomer compound represented by the general formula (1):

$$F \longrightarrow F$$

$$Tf \longrightarrow Tf$$

$$H$$

$$Tf$$

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to a fluorine-containing hydrocarbon polymer compound, wherein Tf indicates a trifluoromethane sulfonyl group (-SO₂CF₃).

- 5. A polymer electrolyte membrane wherein the graft copolymer compound according to claim 2 or 3 is processed into a membrane.
- 6. A polymer electrolyte membrane wherein the monomer compound represented by the general formula (1):

$$F \longrightarrow F$$

$$Tf \longrightarrow Tf$$

$$H$$

$$Tf$$

is graft-copolymerized to a base film comprising a fluorine-containing hydrocarbon polymer, wherein Tf indicates a trifluoromethane sulfonyl group (-SO₂CF₃).

7. A polymer electrolyte fuel cell comprising the electrolyte membrane according to claim 5 or 6, reactive poles that sandwich said electrolyte membrane on both sides thereof, and separators that sandwich said reactive poles.